

REMARKS

The present response is submitted in reply to the Office action which was issued on May 5, 2008. Claims 1-16 are pending in this application. Claims 1-11 and 14-16 are rejected and claims 12-13 are withdrawn. By the present response, claims 1, 8, 9, 12 and 16 have been amended, as discussed below. Reconsideration is respectfully requested in light of the amendments being made hereby and of the following remarks. No new matter has been added.

Rejection of claims 1-11 and 14-16 under 35 U.S.C. 112, second paragraph

Claims 1-11 and 14-16 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

In particular, the Examiner states that the phrase “comprising at least one flexible, self-adhesive core or at least one flexible, self-adhesive carrier layer provided with an envelope or two-sided coating” in claim 1 is unclear, which in turn renders the claim vague and indefinite. The Examiner states that it is unclear from the claim language and specification how the tape is constructed and that the tape seems to be a double sided tape (if that is what is meant by envelope coating) or a tape that has a carrier layer with two adhesive layers in contact with each other and coated on a single side of the carrier layer.

The Examiner also states that the phrase “comprising a second adhesive system” in claim 1 is unclear, which renders the claim vague and indefinite, and that it is unclear from the claim language and specification how there is a second adhesive system when it is unclear if there is a first adhesive system.

The Examiner still further argues that the phrase “wherein the pressure sensitive adhesive tape is based on a pure dispersion acrylate” in claim 3 renders the claim vague and indefinite since it is unclear from the claim language and specification what part of the tape is made with a pure dispersion acrylate. Additionally in claim 3, the Examiner states that the limitation “pressure sensitive adhesive tape” is not supported by sufficient antecedent basis in claim 1.

Lastly, the Examiner states that claims 2, 4-11 and 14-16 are rejected due to their dependency on the previously discussed claims.

The Applicants submit that claim 1 of the present application is directed to a self-adhesive, flexible sealing tape comprising at least one flexible, self-adhesive core/carrier layer, consisting of a material selected from the group of thermoplastic rubbers on the basis of styrene-isoprene, styrene block copolymers or styrene-butadiene-styrene block copolymers, copolymers of vinyl acetate, polyisobutylenes and acrylates which have been thermally or UV-cross-linked. The core/carrier layer is provided with an envelope/two-sided coating which comprises a second adhesive system. The envelope or two-sided coating comprises an expanded pressure-sensitive adhesive tape. Therefore, the claimed system consists of two different adhesive masses: 1) the “core/carrier layer” which functions as a self-adhesive vapour barrier sealant, and 2) the “envelope/two-sided coating” which completely surrounds/encloses the core/carrier layer (see, for example, the present specification at paragraphs [000013] and [000021]).

It is submitted that when compared with usual double-sided adhesive tapes, the core/carrier layer of the sealing tape of the present invention is comparable to a carrier

material and the envelope/two-sided coating is comparable to the adhesive coating on both sides of the carrier. However, unlike double-sided adhesive tapes known in the art, the core/carrier layer in the present invention is not only covered in its longitudinal and latitudinal dimensions with a coating, but is also covered in its altitudinal dimension. Therefore, the core/carrier layer is completely enclosed.

Furthermore, the adhesive masses of core and envelope are different from each other. The core/carrier layer comprises a first hot-melt adhesive system (selected from the group of polymers set forth above) and the envelope/two-sided coating comprises an expanded pressure-sensitive adhesive mass in a carrier-less tape form which is based on, for example, a pure dispersion acrylate. Therefore, the adhesive of the envelope/ /two-sided coating is not a hot-melt adhesive. The thickness of the core/carrier layer is in the range between 0.1 mm and 8 mm, the width is in the range between 1 mm and 10 mm and the thickness of the envelope/two-sided coating is in the range between 0.2 mm and 1.5 mm.

Regarding the objection to claim 3, the Applicants submit that it is clear to one skilled in the art that the term “pressure-sensitive adhesive tape” refers to the expanded adhesive constituting the envelope/two-sided coating. In this regard, the Applicants submit herewith two brochures of the corresponding products which clearly show the design and the function of the sealing tapes of the presently claimed invention.

In view of the above arguments, and with reference to paragraphs [000013], [000014], [000019] and [000020], particularly to the description provided at paragraph [000026], it is submitted that the structure of the present self-adhesive sealing tape is not

clear to one skilled in the art. Therefore, withdrawal of the indefiniteness rejections is respectfully requested.

Rejection of claims 1-8, 14, 15 and 16 under 35 U.S.C. 102(b)

Claims 1-4, 6-8, 14, 15 and 16 have been rejected under 35 U.S.C. 102(b) as being anticipated by German Patent No. DE 100 63 018 A1. The Examiner states that DE '018 discloses a self-adhesive, flexible sealing tape (claim 1) comprising at least one flexible, self-adhesive core or at least one flexible, self-adhesive carrier layer (claim 7) provided with an envelope or two-sided coating comprising a second adhesive system (claim 7), wherein the envelope/coating comprises an expanded pressure-sensitive adhesive tape (claims 5 and 8) and that the material for the core/carrier layer is selected from the group comprising thermoplastic rubber on the basis of styrene-isoprene-styrene block copolymers, styrene-butadiene-styrene block copolymers, copolymers of vinyl acetate and acrylates, as in present claim 1. The Examiner further states that the material for the core/carrier having a glass transition temperature of below 0°C is inherent since the materials of the carrier layer are the desired materials, the pressure-sensitive adhesive tape is based on a pure dispersion acrylate, the pure dispersion acrylate is based on plasticizing monomers selected from the group consisting of 2-ethylhexyl acrylate, 1-butyl acrylate and n-butyl acrylate, the thickness of the core/carrier layer is between 0.1 mm and 8 mm, the width of the core/carrier layer is between 1 mm and 10 mm, the thickness of the envelope/coating is between 0.2 and 1.5 mm and the tape is used for adhesively bonding vapour films or vapour retarder films by adhesively bonding the films to walls.

Claims 1, 2 and 5 have been rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 3,297,846 (Peltier). The Examiner states that Peltier teaches a self-adhesive, flexible sealing tape comprising at least one flexible, self-adhesive core or at least one flexible, self-adhesive carrier layer provided with an envelope or two-sided coating comprising a second adhesive system, wherein the envelope/coating comprises an expanded pressure-sensitive adhesive tape, and that the material for the core/carrier is selected from the group comprising thermoplastic rubbers on the basis of copolymers of vinyl acetate and acrylates, as in present claim 1. The Examiner further states that the material for the core/carrier having a glass transition temperature of below 0°C is inherent since the materials of the carrier layer are the desired materials and the pressure-sensitive adhesive tape comprises an adhesive based on a material selected from the group consisting of vinyl isobutyl ether and isobutene.

The Applicants respectfully disagree with the Examiner's conclusions and submit that the present invention is patentably distinct from the invention disclosed in DE '018. Moreover, the Applicants submit that each and every feature set forth in these claims is not taught or disclosed by the cited reference, and therefore the reference does not anticipate the present invention as set forth in the present claims.

The Applicants submit that, as already noted above, the sealing tape of the present invention comprises at least one flexible, self-adhesive core/carrier layer, consisting of a material selected from the group comprising thermoplastic rubbers on the basis of styrene-isoprene, styrene block copolymers or styrene-butadiene-styrene block copolymers, copolymers of vinyl acetate, polyisobutylenes and acrylates which have been

thermally or UV-cross-linked. The core/carrier layer is provided with an envelope/two-sided coating which comprises a second adhesive system. The envelope/two-sided coating comprises an expanded pressure-sensitive adhesive tape.

In contrast thereto, DE '018 is directed to a double-sided adhesive tape which is known in the prior art, i.e., in which the carrier is not completely surrounded by an adhesive coating, but rather only the upper and lower surfaces of the carrier are covered with an adhesive mass. DE '018 does not disclose a sealing tape but rather a sort of powerstrip tape.

In addition, the carrier according to DE '018 consists of 30-70% by weight of an elastomer on the basis of styrene block copolymers and contains 37-63 % by weight of resins, but is not self-adhesive. The adhesive mass covering the carrier material is an acrylic hot-melt adhesive which is not expanded or which cannot be expanded. The thickness of the carrier layer lies between 50µm and 100µm (i.e., between 0.05 and 0.1 mm), the thickness of the adhesive layer(s) on one or both sides of the carrier material is between 25µm and 800µm (i.e., between 0.025 and 0.8 mm). In this regard, the Applicants respectfully submit that it would be clear to one skilled in the art that both the construction and the function of the product of DE '018 are totally different from the sealing tape of the presently claimed invention. Thus, it is submitted that claim 1 (and the respective dependent claims) of the present invention is novel over and not anticipated by DE '018.

Regarding Peltier, the Applicants submit that the reference describes a fire sensing tape comprising an elongated flexible electrically non-conductive carrier of synthetic

plastic sheet material with an elongated flexible electrically conductive strip fixed to one side of the carrier (preferably centered between the side edges of the carrier and containing metal, preferably silver particles), and a pressure sensitive adhesive on the opposite side of the carrier. However, neither the carrier nor the strip, both of which could function as a carrier, is inherently self-adhesive. Furthermore, neither is completely surrounded / enclosed by a second adhesive which is preferably a pressure sensitive adhesive composition, such as a plasticized polyisobutylene, but not, according to the adhesive of the present invention a dispersion acrylate which is expanded. Therefore, the presently claimed invention is clearly novel in view of Peltier.

Withdrawal of the present rejections is respectfully requested.

Rejection of claims 9-11 and 15 under 35 U.S.C. 103(a)

Claims 9-11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE '018 in view of U.S. Publication No. 2004/0219356 (Valdez). The Examiner states that DE '018 teaches the limitations of claims 9-11, but that DE' 018 fails to disclose that the envelope/coating has a foam-like structure, the sealing tape is equipped with reinforcing elements which stabilize the sealing tape in the longitudinal direction and the reinforcing element is selected from the group consisting of threads, nonwovens or interlaid scrims, wovens, knitted fabrics, and crocheted fabrics.

The Examiner refers to Valdez for the missing limitations of DE '018. In particular, the Examiner states that Valdez teaches an adhesive tape, that the envelope/coating has a foam-like structure, the sealing tape is equipped with reinforcing elements which stabilize the sealing tape in the longitudinal direction and the reinforcing

element is selected from the group consisting of threads, nonwovens and wovens for the purpose of forming a tape that can withstand humidity and extreme temperatures without suffering from disintegration.

Therefore, the Examiner concludes that it would have been obvious to one skilled in the art to have provided the foam tape with the stabilizing structure in DE '018 in order to form a tape that can withstand humidity and extreme temperatures without suffering from disintegration, as taught by Valdez.

The Applicants respectfully submit that to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Third, the prior art reference (or references when combined) must teach or suggest all of the claim limitation. The Applicants respectfully submit that one skilled in the art would have no suggestion or motivation to combine the aforementioned references in order to arrive at the present invention. Additionally, even if one skilled in the art were to consider DE '018, alone or in combination with Valdez, each and every limitation of the present invention would not be disclosed, nor would there be a reasonable expectation of success if the aforementioned references were to be considered.

The Applicants respectfully disagree with the Examiner's opinion that present claims 9-11 are obvious for at least the numerous deficiencies of DE '018 as discussed above. In addition, Valdez fails to make up for any of the aforementioned deficiencies of DE '018.

Valdez discloses a weatherstrip tape for vehicles comprising a heat-activatable olefinic resin layer permanently and directly bonded to an acrylic-type pressure sensitive foam-like adhesive layer (due to the employment of microspheres). Such an adhesive layer may also contain other useful materials, such as fibrous reinforcing agents and some of its subordinated aims are to withstand humidity and extreme temperatures without suffering from degradation. Although the pressure-sensitive adhesive layer of Valdez may be similar to the pressure sensitive adhesive layer of the present invention (for example, acrylic pressure sensitive adhesives containing microspheres have long been known in the art), the pressure-sensitive adhesive layer of the tape according to Valdez does not surround/enclose the olefinic resin layer as in the case of the present invention.

Moreover, the olefinic layer completely differs from the core of the application in question in that it is olefinic, heat-activatable and needs corona treatment before it is connected to the pressure sensitive adhesive layer. Therefore, the tape disclosed by Valdez has one side with a pressure-sensitive adhesive, while the other side consists of a heat-activatable adhesive. It is thus submitted that a tape as presently claimed in which a core made of a melt is enclosed by an expanded pressure-sensitive adhesive is not described in Valdez as it fails to make up for the deficiencies of DE '018.

In particular and as described above, the tapes described in DE '018 and Valdez not only differ in structure and components used relative to the present invention, but also have different functions. While the tapes according to Valdez have to be heat activated and have a layered structure, the tape disclosed in DE '018 is a "simple" double sided adhesive tape. To the contrary, a sealing tape according to claim 1 of the present

invention with an adhesive core/carrier layer which ensures adherence and imperviousness even if the adhesive of the envelope is damaged during mounting or simply by aging, is neither taught or disclosed in the cited prior art or by the combination of teachings of the cited prior art.

In conclusion, it is respectfully submitted that one skilled in the art would not have considered combining the teachings of the cited prior art to arrive at the presently claimed invention, and even if such combination were performed, would not yield each and every limitation of present claims 9-11. Withdrawal of this rejection is strongly requested.

Conclusion


In light of the foregoing claims and arguments, it is believed that the present application is in condition for allowance, and such action is earnestly solicited. The Examiner is invited to call the undersigned if there are any remaining issues to be discussed which could expedite the prosecution of the present application.

Date:

October 6, 2008

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Respectfully submitted,

By: 
D. Peter Hochberg
Reg. No. 24,603



Dampfsperrenverklebung

Haftklebekompetenz am und im Bau

Vapour Barrier Bonding

Pressure-sensitive adhesive bonding competence in building & construction

Lomacoll®

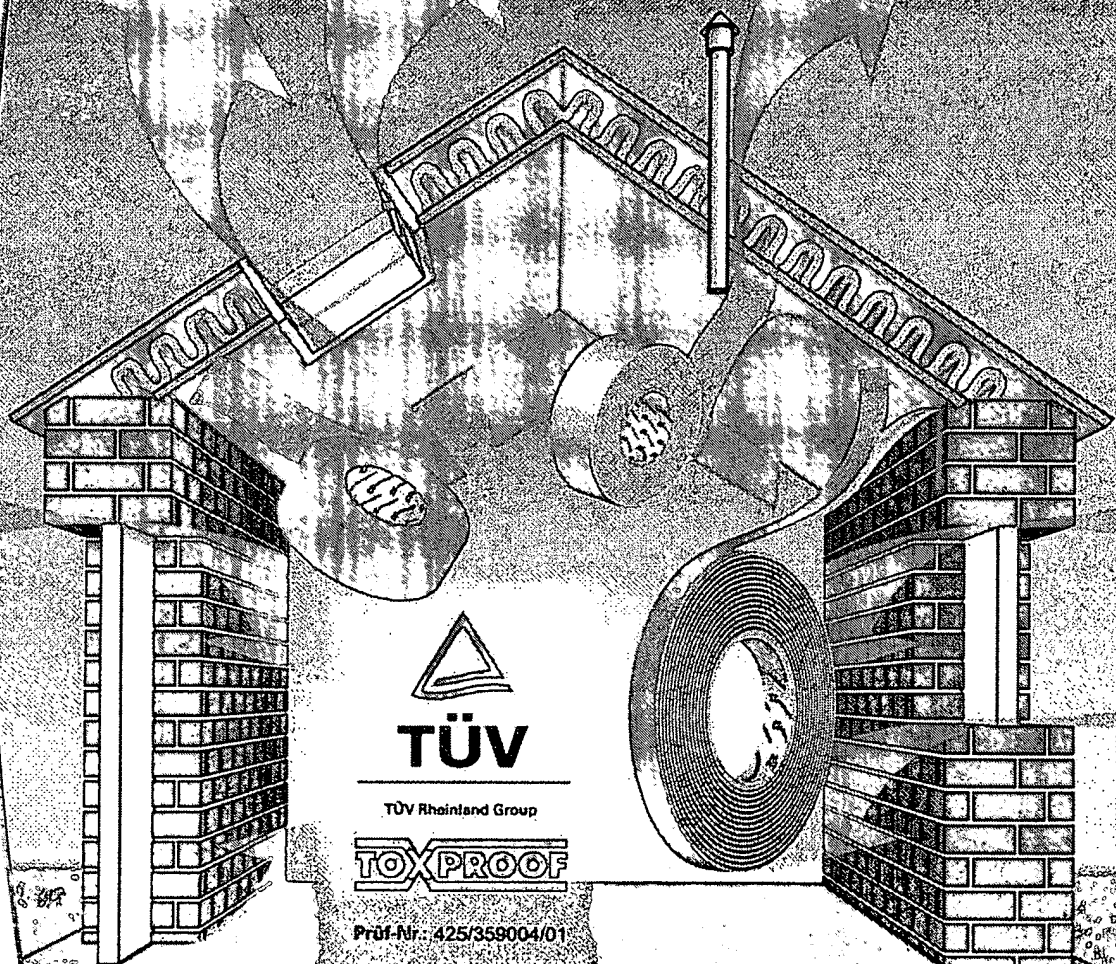
Einseitige Klebebänder
für die Verklebung von
Dampfbremsen und
Dichtbahnen

Single-sided adhesive
tapes for bonding vapour
barriers and sealing films

Duplocoll® DSDS

die Kartusche
von der Rolle

The cartridge
glue on a roll



TÜV

TÜV Rheinland Group

TOXPROOF

Prüf-Nr.: 425/359004/01

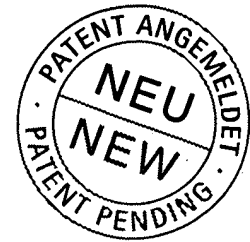
Zum Patent angemeldet
Patent pending

Lohmann
Adhesive tape systems


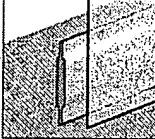


koester | metafol

Duplocoll® DsDs – Dampfsperren Dichtschnur

Duplocoll® DsDs – Vapour barrier sealing cord



- Für dauerhafte und dauerelastische Wandanschlussklebung von Dampfbremsfolien
- Enorm hohe Klebkraft
- Klebt auf restfeuchten Untergründen
- Verarbeitung bei niedrigen Temperaturen (-10°C)
- Hohe Verarbeitungssicherheit durch Formstabilität
- Geprüft nach DIN EN 12114 „Luftdichte Verklebung von Dampfbremsfolien“ (Druck-/Sogbelastung $> 500\text{ pa}$)
- Long-lasting and permanently elastic bonding of vapour barrier films to masonry
- Outstanding adhesion
- Even adheres to surfaces with residual moisture
- Can be processed even at low temperatures (-10°C)
- Dimensional stability provides excellent processability
- Tested according to DIN EN 12114 "Airtight bonding of vapour barrier films" (air pressure/suction pressure $> 500\text{ pa}$)

Produkte Products	Beschreibung Description	Description
 Duplocoll® 144 DsDs	Standard <ul style="list-style-type: none"> • Breite 25 mm • einspuriger Kern <ul style="list-style-type: none"> - 1 x 5 mm - 3 mm dick 	Standard <ul style="list-style-type: none"> • Width 25 mm • Single-trace core (centre-piece) <ul style="list-style-type: none"> - 1 x 5 mm - 3 mm thickness 
 Duplocoll® 145 DsDs	Speziell für abrasive Untergründe <ul style="list-style-type: none"> • Breite 25 mm • zweispuriger Kern <ul style="list-style-type: none"> - 2 x 5 mm - 2 mm dick 	Especially for abrasive surfaces <ul style="list-style-type: none"> • Width 25 mm • Double-trace core (centre-piece) <ul style="list-style-type: none"> - 2 x 5 mm - 2 mm thickness 

Universität Kassel
Fachgebiet Bauphysik
Dr.-Ing. Anton Meier

Luftdichtheitsmessung von Bauteilen
Kurzzusammenfassung für das einspurige Klebeband Duplocoll 144 DsDs

Gegenstand der Prüfung: Gegenstand der Untersuchungen ist die einspurige Klebeband Duplocoll 144 DsDs der Firma LÖHMEYER GmbH & Co. KG. Untersuchte wird die Luftdichtheit der Verklebungen auf OSB-Platten, grob verputzten Mauerwerk sowie auf glatt verputzten Mauerwerk.

Auftraggeber: LÖHMEYER GmbH & Co. KG
D-96327 Neustadt

Prüfstelle: Fachgebiet Bauphysik der Universität Kassel

Prüfbericht: PB 80 - 141 / 04, Luftdichtheitsmessung von Bauteilen, 15 Seiten

Luftdichtheitsmessung: Die Luftdichtheitsmessung erfolgt in Anlehnung an DIN EN 12114, April 2000. Die Ergebnisse sind der folgenden Tabelle zu entnehmen.

Tabelle: Offset-korrigierte mittlere Volumenströme aus Über- und Unterdruckmessung für das Klebeband Duplocoll DsDs 144 auf unterschiedlichen Probenmaterialien

Probenmaterial	Druckdifferenz (Pa)	Offset-korrigierte Mittelwerte aus Über- und Unterdruckmessung (m³/s)
glatt verputztes MW	50	0,1 ± 0,3
	250	0,2 ± 0,7
	500	0,2 ± 1,4
grob verputztes MW	50	0,1 ± 0,2
	250	0,4 ± 0,8
	500	0,6 ± 1,4
OSB Untergrund	50	0,1 ± 0,2
	250	0,6 ± 0,8
	500	1,3 ± 0,8

Prüfergebnisse: Die Betrachtung der Messergebnisse für das Klebeband Duplocoll 144 auf unterschiedlichen Probenmaterialien zeigt, dass die Luftdichtheit der Verklebungen auf OSB-Platten, grob verputzten Mauerwerk sowie auf glatt verputzten Mauerwerk ausreichend ist.

Mitglied im
Member of the



Fachverband Luftdichtheit
im Bauwesen e.V.
Gottschalkstraße 28 a
34127 Kassel
Association for Air Tightness
in Building & Construction
(FLiB e.V.)
Gottschalkstraße 28 a
34127 Kassel, Germany

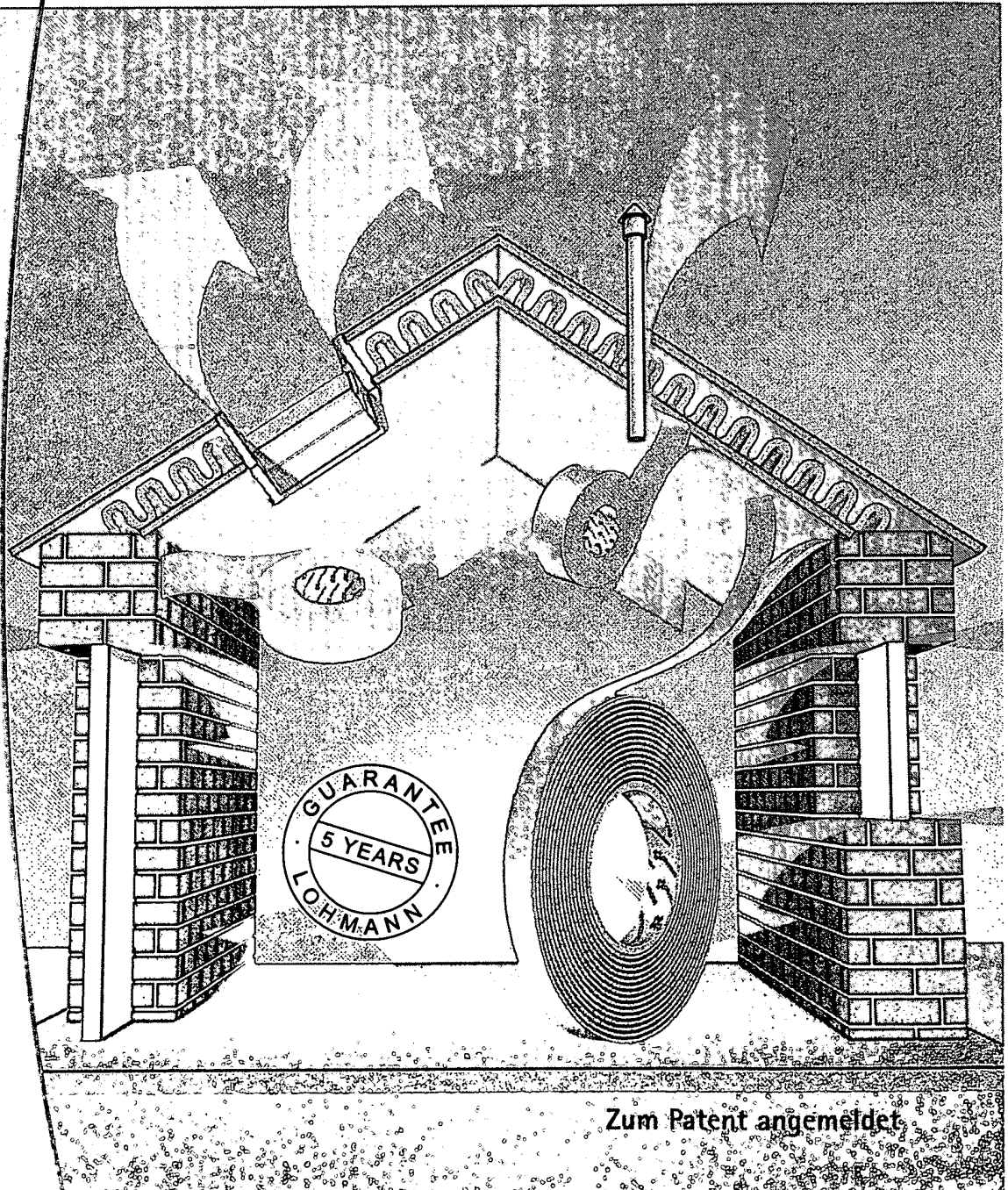


Duplocoll® 144 DsDs **NEU!**
Dampfsperren-Dichtschnur

Duplocoll® 144 DsDs **NEW!**
Vapour Barrier Sealing Cord

Die Kartusche auf der Rolle = vereint die Vorteile des Kartuschenklebers mit denen eines Haftklebebandes

Cartridge on roll - combining the advantages of a cartridge glue with those of an adhesive tape



Lohmann
Adhesive tape systems

koester metafol

Duplocoll® 144 DsDs – Dampfsperren-Dichtschnur

Duplocoll® 144 DsDs – Vapour Barrier Sealing Cord

Ist Ihnen bewusst, dass Kartuschenkleber...

- nur bedingt bei niedrigen Temperaturen gelagert werden können (z. B. nachts im Transporter)?
- schwierig auf kalten Bauteilen zu kleben sind?
- anfällig gegen Feuchtigkeit sind?
- keine definierte Dicke aufweisen? Diese hängt von der Öffnung der Kartuschendüse und dem Kraftaufwand ab.
- mit Kraft ausgebracht werden müssen?
- durch ihre Viskosität tropfen und verunreinigen können?
- erst nach längerer Reaktionszeit belastbar sind?

Denken Sie um! Duplocoll® 144 DsDs...

- ist verarbeitbar bis -10 °C und temperaturbeständig bis -40 °C!
- klebt auf noch restfeuchten Untergründen!
- hat eine definierte Dimension, ist formstabil und anpassungsfähig!
- ist einfach verarbeitbar, bei geringem Kraftaufwand! Kein zusätzliches Verarbeitungswerkzeug erforderlich!
- ist durch hohe Anfangslebkraft sofort belastbar!

Technische Daten:

Dimension: 25 mm x 3 mm x 10 mm
 Verpackungseinheit: 5 Rollen je Karton
 Verarbeitungstemperatur: -10 °C bis +50 °C
 Temperaturbeständigkeit: -40 °C bis +80 °C
 Lösemittelfrei

Geeignete Untergründe:

Stein, Beton, Putz, Holz, Metall

- Vereinigt alle Vorteile / Qualitätsmerkmale von Lomacoll® 110 und 111 in einem Produkt.
- An der Universität Kassel geprüfte Qualität.
- Dauerhafte und elastische Verklebung gemäß DIN 4108-7.

Vervollständigt das geprüfte Lohmann-System für die Verklebung von Dampfbremsfolien gemäß DIN 4108-7.

Are you aware that cartridge glues...

- cannot be stored at low temperatures (e.g. during the night in a delivery van)?
- are difficult to bond on cold components?
- are vulnerable to moisture?
- do not feature a defined thickness? It depends on the cartridge's loophole and effort.
- take effort to be deployed?
- can drip and therefore pollute due to their viscosity?
- can be strained only after a longer period of reaction time?

Rethink! Duplocoll® 144 DsDs...

- can be processed down to -10 °C and is temperature resistant down to -40 °C!
- bonds on moist surfaces!
- features a defined, stable dimension as well as adjustability!
- can easily be processed, at low effort! Further processing tools are not necessary!
- can be strained right away due to its high initial tack!

Technical data:

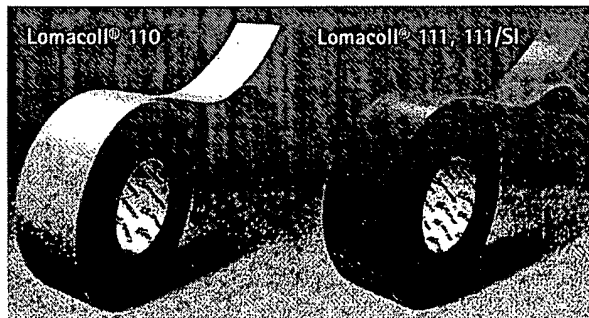
Dimension: 25 mm x 3 mm x 10 mm
 Packaging unit: 5 Rolls per box
 Processing temperature: -10 °C up to +50 °C
 Temperature resistance: -40 °C up to +80 °C
 Solvent-free

Suitable substrates:

Rock, concrete, plaster, wood, metal

- Combines all advantages / quality features of Lomacoll® 110 and 111 in one product.
- Quality tested at the university of Kassel, Germany.
- Permanent and elastic bonding in accordance with DIN 4108-7.

Completes the tested Lohmann System for the bonding of vapour barriers according to DIN 4108-7.



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 www.lohmman-tapes.com

Lohmann
 Adhesive tape systems

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